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TITLE

SLIDING MEMBER AND ITS PRODUCTION

ABSTRACT :

PURPOSE: To provide a sliding member which is excellent in both wear resistance and seizure resistance by forming an iron-phosphorus plating film having a prescribed phosphorus content on said member.

CONSTITUTION: A sliding member on a part or the whole of which an iron-phosphorus plating film contg. 0.1~0.99wt%, more particularly 0.74~2wt% phosphorus is formed is provided. The thickness of the film in this case is made generally preferably 5~150μ, more particularly preferably 10-50µ. A blank material for the sliding member to be formed thereon with the iron-phosphorus film is not always limited and in the case of an ordinary piston, an Al casting of ACSA.T6 or the like is used. A method for subjecting the blank material for the sliding member to plating by using a plating bath contg. preferably Fe²⁺ and phosphorous acid and/or phosphite and Al ion, etc. is adopted to manufacture the sliding member formed thereon with the above-described iron-phosphorus plating film. The iron-phosphorus plating film having no cracks on the section is obtd. and the wear resistance is further improved when electroplating is accomplished by using such plating bath.

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